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Occurrence of a New *Platynus* (Coleoptera, Carabidae) in Chiba Prefecture, Central Japan

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Abstract A new platynine carabid beetle, *Platynus (Pseudoplatynus) kazuyoshii* sp. nov., is described from Chiba Prefecture, Central Japan. It is mainly characterized by smaller body, rather narrow elytra and large aedeagal apical lobe.

Key words: Coleoptera; Carabidae; *Platynus*; Chiba Prefecture.

So far as we are aware, a total of eight species belonging to the genus *Platynus* have been known from the Far East, six of them from Japan, four from Siberia, and two or three from China. Most of them are fully winged and widely distributed in these areas. For example, *P. assimilis* (PAYKULL, 1790, p. 53) is distributed from Europe to Hokkaido, North Japan. Another example is *P. mannerheimii* (DEJEAN, 1828, p. 104) whose distributional range covers Europe and Siberia, and extends to North America across the Bering Strait.

Contrary to these widespread species, three species (*P. subovatus* (PUTZEYS), *P. takabai* (HABU) and *P. satsumanus* HABU) are more localized. In addition to these three, we are going to describe a new species under the name of *P. kazuyoshii*.

The abbreviations used herein are as follows: HW-greatest width of head; PW-greatest width of pronotum; PL-length of pronotum, measured along the mid-line; PA-width of pronotal apex; PB-width of pronotal base; EW-greatest width of elytra; EL-greatest length of elytra; TL-length of metatarsus; TI-length of segment I of metatarsus; TV-length of claw segment of metatarsus; NSMT-National Science Museum (Nat. Hist.), Tokyo.

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Platynus (Pseudoplatynus) kazuyoshii MORITA et Y. KUROSA, sp. nov.

(Figs. 1-6)

Length: 10.31-10.95 mm (from apical margin of clypeus to apices of elytra).

Body black; vertex with two red spots; ventral side blackish brown; sides of pronotum and of elytra dark brown to brown; appendages brown.

Head convex; frontal furrows short, a little divergent posteriad and usually close to anterior supraorbital pores, and with several wrinkles at the posterior ends; microsculpture not sharply impressed though consisting of wide meshes, partially obliterated; anterior supraorbital pores situated at a little before the mid-eye level; posterior ones situated at the post-eye level; labrum slightly emarginate, median part rarely a little produced; mentum tooth very wide and obtuse at the tip; antennae slender; antennal segment I thick, and with a long seta; segment II usually with a long seta, rarely with two or three setae; relative lengths of antennal segments as follows:—I: II: III: IV: V: VI: XI = 1: 0.48: 1.03: 1.20: 1.11: 1.07: 1.00.

Pronotum relatively transverse, widest at about 2/3 from base; apex moderately

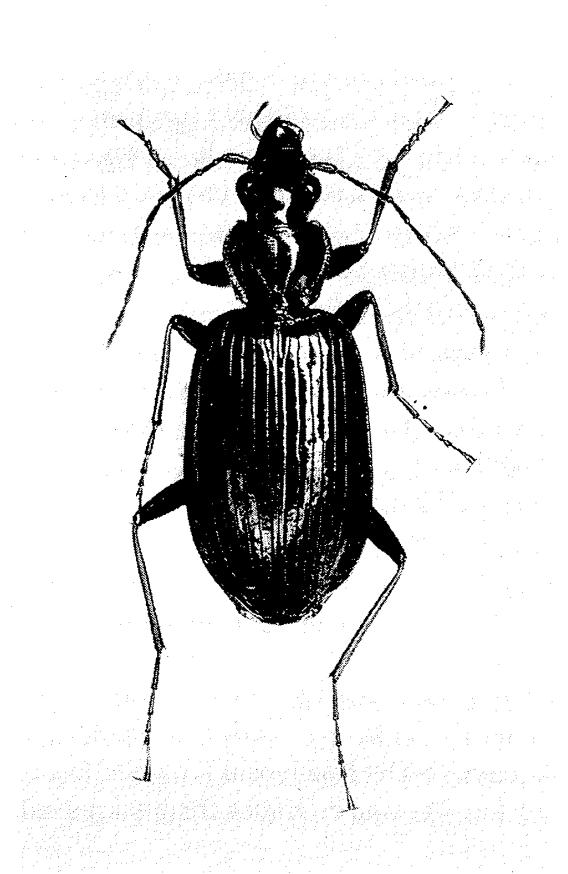
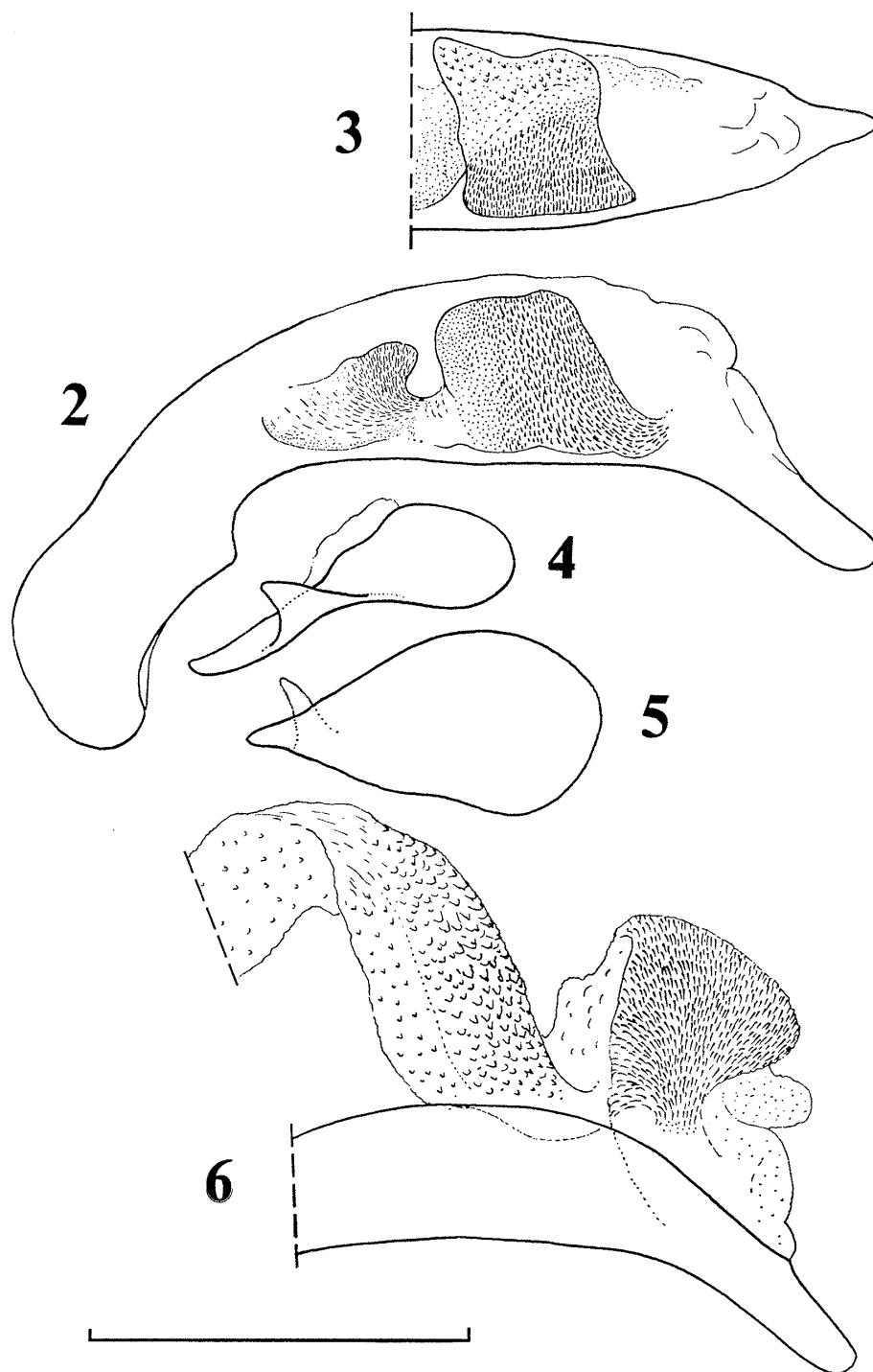


Fig. 1. *Platynus (Pseudoplatynus) kazuyoshii* MORITA et Y. KUROSA, sp. nov., from Shiigi, Chiba Prefecture, Central Japan.



Figs. 2-6. Male genital organ of *Platynus (Pseudoplatynus) kazuyoshii* MORITA et Y. KUROSA, sp. nov. —— 2, aedeagus, left lateral view; 3, apical part of aedeagus, dorsal view; 4, right style, left lateral view; 5, left style, left lateral view; 6, aedeagus, showing extracted inner sac, left lateral view in another specimen. (Scale: 1.00 mm.)

emarginate, narrower than base, and finely bordered throughout, rarely vague at middle; apical angles produced and rounded; sides weakly arcuate in front, gently convergent towards hind angles, or rarely very slightly sinuate just before hind angles; reflexed lateral borders wide, and merging on each side into basal fovea; hind angles obtuse, and with posterior marginal seta on each side; median line weakly impressed, reaching neither apex nor base; anterior marginal setae inserted at the widest part; a small depression rarely present on each side at a level between anterior marginal seta and median line; basal foveae large, deep and elongate and rarely rugose; base weakly arcuate and bordered throughout; microsculpture not sharply impressed and consisting of transverse meshes on the disc, but strongly impressed and consisting of wide meshes at the sides and basal part.

Wings developed; elytra elongate, widest a little behind the middle; surface weakly convex; shoulders rounded; basal border gently arcuate and rounded at shoulder; sides either slightly arcuate or almost straight behind shoulders, then gently rounded to apices, each with rather deep preapical emargination; intervals flat or slightly convex; interval III usually with 3 dorsal pores, rarely 2 or 4; the first pore adjoining stria III, the second one usually adjoining stria II, rarely stria III, the third one usually adjoining stria II, rarely on interval III; first pore situated at 1/5, the second at 2/5 or a little before the middle, the third at 7/10 from base, respectively; striae shallow and slightly crenulated; scutellar striole rather long; microsculpture distinct, consisting of polygonal meshes, partially of wide meshes; marginal series composed of 17 pores.

Ventral side almost smooth; apex of anal sternite strongly produced, and with two setae on each side, rarely one seta on one side.

Table 1. Standard ratios of body parts in *Platynus* spp.

Locality	<i>P. kazuyoshii</i> sp. nov. 9♂♂	<i>P. magnus</i>			<i>P. satsumanus</i>
	Shiigi Chiba Pref.	Ojagaike Chiba Pref.	Kasai Tokyo	Ōifutō Tokyo	Yaku-shima Kagoshima Pref.
PW/HW	1.22 (1.19-1.27)	1.31	1.30	1.28	1.22
PW/P L	1.35 (1.19-1.39)	1.32	1.26	1.23	1.29
PW/P A	1.45 (1.39-1.50)	1.50	1.49	1.48	1.41
PW/P B	1.29 (1.23-1.32)	1.33	1.34	1.31	1.27
P A/P B	0.89 (0.88-0.92)	0.88	0.90	0.88	0.90
EW/PW	1.73 (1.63-1.84)	1.61	1.69	1.72	1.84
E L/EW	1.61 (1.55-1.67)	1.72	1.67	1.67	1.54

Legs slender; meso- and metatarsi I-III each with inner and outer sulci on dorsal side, though the sulcus is sometimes rudimentary or disappears, especially in segments II and III; claw segment of metatarsus with several hairs below; $TI/TV \doteq 0.95$; $HW/TL \doteq 0.72$; inside of mesotibia with an elongate depression at 2/5-9/10 from base, though the surface is hairless and coarse.

Aedeagus elongate with large apical part; viewed laterally, ventral side almost straight at median part; apical lobe elongate, straight and rounded at the extremity in lateral view; viewed dorsally, apical lobe gradually narrowed and simply rounded at the extremity; sagittal aileron practically absent or not prominent; inner sac twisted and covered with scales or minute spinules; styles broad, almost equal in length though the left style is broader than the right.

Type series. Holotype: ♂, 23-XII-1993, Y. KUROSA leg. (NSMT). Paratypes: 5 ♂♂, 23-XII-1993, Y. KUROSA leg.; 2 ♂♂, 24-I-1994, Y. KUROSA leg.; 1 ♂, 27-III-1994, Y. KUROSA leg.

Type locality. Shiigi, Misaki-machi, Chiba Prefecture, Central Japan.

Notes. This new species can be easily distinguished from *P. magnus* (BATES) (1873, p. 278) by the following points: 1) body smaller on an average; 2) mentum tooth very wide and obtuse at the tip; 3) ratio of lengths of antennal segments II/III $\doteq 0.44-0.49$ (M 0.47) [in *P. magnus*, 0.37-0.42 (M 0.40)]; 4) elytra with flator slightly convex intervals; 5) microsculpture consisting of polygonal meshes, partially of wide ones; 6) inner side of each mesotibia with a glabrous depression; 7) $HW/TL \doteq 0.69-0.76$ (M 0.72) [in *P. magnus*, 0.60-0.70 (M 0.64)]; and 8) aedeagus with large apical lobe.

Judging from the shape of aedeagal apical lobe, this new species is most closely allied to *P. satsumanus* HABU (1974, p. 13).¹⁾ It is, however, distinguished from the latter mainly by the following points: 1) elytra narrower; 2) elytra with flat or slightly convex intervals; 3) different conformation of aedeagus. Besides, there is a wide geographical gap between the distributional ranges of the two species.

Japanese name: Kazusa-hirata-gomimushi.

References

- BATES, H. W., 1873. On the geodephagous Coleoptera of Japan. *Trans. ent. Soc. London*, **1873**: 219-322.
 HABU, A., 1954. Species of the genus *Agonum* (Coleoptera, Carabidae) and its allied genera from Mt. Hiko, Kyushu (The Carabidae-fauna of Mt. Hiko, V). *Bull. natn. Inst. agric. Sci., Tokyo*, (c), (4): 295-337.
 ——— 1973. Notes on the generic name *Agonum* (Coleoptera, Carabidae). *Ent. Rev. Japan, Osaka*, **25**: 65-70.

1) *Platynus (Pseudoplatynus) satsumanus* HABU

Specimens examined. 1 ♂, 1 ♀, Koseta, Yakushima Is., Kagoshima Pref., 23-XI-1984, S. MORITA leg. (MORITA, 1987, p. 70); 2 ♀♀, Kuchinoerabu-jima Is., Kagoshima Pref., 27-IV-1984, M. ÔHARA leg.

- HABU, A., 1974. Some new Japanese species and subspecies belonging to *Platynus* (s. lat.) in Mr. T. SHIBATA's collection (Coleoptera, Carabidae). *Ent. Rev. Japan, Osaka*, **27**: 13–31.
- 1978. Carabidae: Platynini (Insecta: Coleoptera). *Fauna Japonica*. viii+447 pp., 36 pls. Keigaku Publ., Tokyo.
- LAFER, G. Sh., 1992. Podotriad Adephaga. In LERA, P. A. (ed.), *Opredelitel' Nasekomykh Dal'nego Vostoka SSSR v Shesti Tomakh*, 3 (2): 602–621. (In Russian.)
- LINDROTH, C. H., 1966. The ground-beetles (Carabidae, excl. Cicindelinae) of Canada and Alaska. Part 4. *Opusc. ent. Suppl.*, **29**: 409–648.
- 1986. The Carabidae (Coleoptera) of Fennoscandia and Denmark. *Fauna ent. scand.*, **15** (2): 233–497.
- MORITA, S., 1987. Some carabid beetles of the Island of Yaku-shima, Southwest Japan. *Ent. Rev. Japan, Osaka*, **42**: 69–71.

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支部活動報告

四国支部 第33回大会は、平成6年6月11日、松山市の愛媛大学農学部で開催された。参会者は正・準会員50名を含む51名で、次の講演があった。

- 1) 桑田一男（松山淡水ベントス研究所）：愛媛県におけるカワゲラ類受難の実態。2) 出嶋利明（香川県立飯山高校）：瀬戸内のエゾスジグロシロチョウとスジグロシロチョウ。3) 中村寛志（瀬戸内短期大学）・豊嶋弘（香川県立高松第一高校）：チョウの分布からみた香川県の環境評価一定性データ活用の試み。4) 井上大成（森林総研・四国）・西村知記（滋賀県水口県事務所）：クヌアナアキゾウムシの高知県における発生態。5) 本藤幹雄（愛媛大・農学部）：愛媛県興居島における自然環境とマツノマダラカミキリの発生態。6) 相田和博（愛媛大・農学部）：クワキジラミを補食するハラグロオオテントウの餌の選好性について。7) 伊藤文紀（香川大・教育学部）・杉浦直人（神戸大・自然科学）・東正剛（北大・地球環境）：オーストラリア産キバハリアリ *Myrmecia froggatti* におけるハタラキアリの多型。8) 川那部真（愛媛大・農学部）：小田深山のツツキノコムシ科甲虫。9) 李 利珍（愛媛大・農学部）：四国の *Tachinus* 属について（甲虫目：ハネカクシ科）。10) 増井武彦（香川県環境研究センター）：篠山の蛾相。

また、翌12日には恒例のエクスカーションとして、愛媛県上浮穴郡の小田深山一帯にて採集会が行われた。